PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2031363PC/ko	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/FI 2004/000349	International filing date (day/month/year) 08-06-2004	Priority date (day/month/year) 25-06-2003

International Patent Classification (IPC) or national classification and IPC

H04M3/56, H04Q7/38, H04L12/56

Applicant

NOKIA CORPORATION ET AL

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1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of ___5___ sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

   a. ☒ (sent to the applicant and to the International Bureau) a total of ___3___ sheets, as follows:

   ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

   ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

   b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))

   _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

   ☒ Box No. I   Basis of the report

   ☐ Box No. II   Priority

   ☐ Box No. III   Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

   ☐ Box No. IV   Lack of unity of invention

   ☒ Box No. V   Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

   ☐ Box No. VI   Certain documents cited

   ☐ Box No. VII   Certain defects in the international application

   ☐ Box No. VIII   Certain observations on the international application

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Date of submission of the demand 21-01-2005	Date of completion of this report 29-03-2005
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Form PCT/IPEA/409 (cover sheet) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY	International application No.
	PCT/FI 2004/000349

Box No. I   Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐   This report is based on a translation from the original language into the following language _____ , which is the language of a translation furnished for the purposes of:

        ☐   international search (under Rules 12.3 and 23.1(b))

        ☐   publication of the international application (under Rule 12.4)

        ☐   international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

   ☐   the international application as originally filed/furnished

   ☒   the description:

        pages   **1-14** _____ as originally filed/furnished

        pages* _____ received by this Authority on _____

        pages* _____ received by this Authority on _____

   ☒   the claims:

        pages _____ as originally filed/furnished

        pages* _____ as amended (together with any statement) under Article 19

        pages*   **15-17** _____ received by this Authority on   **2005-01-21**

        pages* _____ received by this Authority on _____

   ☒   the drawings:

        pages   **1-4** _____ as originally filed/furnished

        pages* _____ received by this Authority on _____

        pages* _____ received by this Authority on _____

   ☐   a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐   The amendments have resulted in the cancellation of:

        ☐   the description, pages _____

        ☐   the claims, Nos. _____

        ☐   the drawings, sheets/figs _____

        ☐   the sequence listing *(specify):* _____

        ☐   any table(s) related to the sequence listing *(specify):* _____

4. ☐   This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

        ☐   the description, pages _____

        ☐   the claims, Nos. _____

        ☐   the drawings, sheets/figs _____

        ☐   the sequence listing *(specify):* _____

        ☐   any table(s) related to the sequence listing *(specify):* _____

   *   *If item 4 applies, some or all of those sheets may be marked "superseded."*

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	1-10	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Cited documents in the International Search Report:

D1: US6577622 B1
D2: US6128381 A
D3: EP0954156 A
D4: WO02087204 A
D5: WO0038400 A
D6: US2003152040 A1 (Published 2003-08-14).
D7: US2003153343 A1 (Published 2003-08-14).

D1 describes a call establishing system for a teleconference network, which forwards communication data to a companion telephone relevant to specified partner data through a network interface, to initiate conferencing. Voice communication data from the companion telephone is received through a user interface. The network telephone interface communicates the voice data to the companion telephone to initiate the conference call, based on specified communication partner data. The system is used for a teleconferencing network, internet telephone network. Accessing the internet using a router is improved by connecting the telephones to access networking. This improves flexibility and failure restoration, due to the use of separate interfaces, (Column 1 line 1 – column 3 line 38).

D2 describes a mobile communication unit a having selectable phone book or stored directory. It has a key-pad for keying item into storage, for selecting item on display or for selecting the operation to be performed on one or more selected items. The mobile communication unit has a phone book storing predetermined operations to be executed on stored items in the book.

. . ./. . .

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

A display displays operations stored and any item stored in the phone book. A key-pad allows items to be keyed into storage, or selection of items on the display or operations on the display to be performed on the selected items. The phone book is adapted to enable selection of more than one item displayed, or selection of an operation to be executed on all items selected in a first step. The unit simplifies steps that the user requires to perform complex operations such as the set up of a conference call, (column 1-6).

D3 describes a telephone apparatus for establishing a conference call. The telephone comprises a memory for storing the names and telephone numbers associated with a group of users. For establishing a conference call, a control section is used to retrieve the first number in the group, from the memory, and instruct the network to call the first user listed in the group. When the first call is established, and placed on hold, a similar process is executed for the second user in the group. When all users in the group are finally involved, the control instructs the network to join the calls. The telephone sets up a conference call with minimum intervention from the calling party, simplifying the process for the calling party, which could otherwise be time consuming and liable to errors, (abstract).

D4 describes a conference call establishment method using a telecommunication network such as PSTN or IN network, which involves establishing a conference call between the calling and called parties whose group are stored in the memory of the calling party terminal. Information identifying that the called parties' terminals are in a conference mode, is displayed on the calling party's terminal. A request is sent from the calling party's terminal to establish a conference call with the called parties whose groups are previously stored in a memory of the calling party's terminal. The conference call is established between the calling and called parties. The method provides a user-friendly way of automatically setting up the conference call, allows remote access to conference calls without tedious and advance work to set up the calls, by establishing the call with the called parties, whose group are stored in the calling party's memory, (page 2 lines 15 - 34).
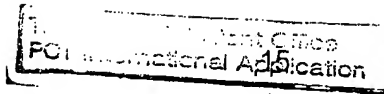
.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

D5 describes an automatic conference call establishing method which involves receiving and dialling telephone numbers of prospective participants and selectively bridging telephone call into a call conference. On receiving a list of telephone numbers corresponding to conference call participants, each number is automatically dialled. When the telephone call is answered, the call is directed to the conference call requesting party. The answered telephone call is selectively bridged into the conference call after indicating to the call requesting party that the answered telephone call has been directed, (page 2 line 8 – page 3 line 10).

The invention defined in claims 1-10 is not disclosed by any of these documents. The cited prior art does not give any indication that would lead a person skilled in the art to the claimed a method of making an ad-hoc group call in a subscriber device a Communications system, the method comprising storing a list of subscribers in a phonebook application in a subscriber device, storing presence information of the subscribers in the phonebook application, said presence information including information on the availability of the subscribers for a group call, and in response to receiving, via a user interface from a user of the subscriber device, a group call activation with a selection of two or more subscribers from the phonebook, providing appropriate signalling with a group communication service in a network infrastructure for establishing an ad-hoc group call consisting of the selected subscribers and the user of the subscriber device.

Therefore, the invention defined in claims 1-10 is not obvious to a person skilled in the art. Accordingly, the invention defined in claims 1-10 is novel and is considered to involve an inventive step. The invention defined in claims 1-10 is industrially applicable.

CLAIMS

1. A method of making an ad-hoc group call in a subscriber device of a communications system, the method comprising

storing a list of subscribers in a phonebook application in a sub-
5   scriber device,

storing presence information of the subscribers in the phonebook application, said presence information including information on the availability of the subscribers for a group call, and

in response to receiving, via a user interface from a user of the sub-
10   scriber device, a group call activation with a selection of two or more sub-
scribers from the phonebook, providing appropriate signalling with a group communication service in a network infrastructure for establishing an ad-hoc group call consisting of the selected subscribers and the user of the sub-
scriber device.

15   2. A method according to claim 1, comprising

sending a speech item or a speech item request each time a talk ac-
tivity is detected or indicated in the subscriber device during a call.

3. A method according to claim 1 or 2, comprising

opening the phonebook application in response to a predetermined
20   input from the user interface,

displaying the list of subscribers on the user interface,

in response to the user's selection of two or more subscribers from the list via the user interface, displaying a group communications menu on the user interface, and

25   establishing an ad-hoc group including the user and the selected subscribers in response to the user selecting a predetermined operation in the group communications menu or the user pressing a predetermined button, such as an off-hook button or a push-to-talk switch.

4. A method according to claim 1 or 2, comprising
30   opening the phonebook application in response to a predetermined input from the user interface,

displaying the list of subscribers on the user interface,

receiving the user's selection of two or more subscribers from the list via the user interface, and

establishing an ad-hoc group including the user and the selected subscribers in response to the user pressing a predetermined button, such as an off-hook button or a push-to-talk switch.

5. A subscriber device for a mobile communication system, comprising

a talk group communication means,

a phonebook application means storing a list of subscribers,

the phonebook application means being configured to store presence information of the subscribers, said presence information including information on the availability of the subscribers for a group call, and

means responsive to receiving, via a user interface from a user of the subscriber device, group call activation with a selection of two or more subscribers from the phonebook for providing appropriate signalling with a group communication service in a network infrastructure for establishing an ad-hoc group call consisting of the selected subscribers and the user of the subscriber device.

6. A device according to claim 5, comprising

said talk group communication means being configured to send a speech item or a speech item request each time a talk activity detector or a push-to-talk switch is activated in the subscriber device during a call.

7. A device according to claim 5 or 6, comprising

the phonebook application being configured to display the list of subscribers on the user interface,

the phonebook application being configured, in response to the user's selection of two or more subscribers from the list via the user interface, to display a group communications menu on the user interface, and

the phonebook application being configured to initiate establishment of an ad-hoc group including the user and the selected subscribers in response to the user selecting a predetermined operation in the group communications menu or the user pressing a predetermined button, such as an off-hook button or a push-to-talk switch.

8. A device according to claim 5, 6 or 7, comprising

the phonebook application being configured to display the list of subscribers on the user interface, .

the phonebook application being configured, in response to the user's selection of two or more subscribers from the list via the user interface, to display a group communications menu on the user interface, and

the phonebook application being configured, in response to the

5   user's selection of two or more subscribers from the list via the user interface and the user selecting a predetermined operation in the group communications menu or the user pressing a predetermined button, such as an off-hook button or a push-to-talk switch, to initiate establishment of an ad-hoc group including the user and the selected subscribers.

10   9. A program comprising program code means that, when run in a processor of a subscriber device of a communication system, provide all steps of the method according to any one of claims 1 to 4.

10. A storage medium comprising an executable program that includes

15   a phonebook application routine configured to store a list of subscribers in a subscriber device of a communications system,

a device. routine configured, in response to receiving, via a user interface from a user of the subscriber device, group call activation with a selection of two or more subscribers from the phonebook to provide an appropriate

20   signalling with a group communication service in a network infrastructure for establishing an ac-hoc group call consisting of the selected subscribers and the user of the subscriber.